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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/937,878	10/01/2001	Rainer Wiesmann	P01,0284	9015
29177	7590	09/30/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			PAYNE, DAVID C	
			ART UNIT	PAPER NUMBER
			2633	

DATE MAILED: 09/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/937,878

Applicant(s)

WIESMANN ET AL.

Examiner

David C. Payne

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-5 and 14-27 is/are allowed.
- 6) ☒ Claim(s) 1, 6-12 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2/19/2002.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 6-12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fisher et al. US 5,528,596 (Fisher).

Regarding claims 1, 12 and 13 Fisher disclosed

A method of measuring a distribution function for determining a signal quality in optical transmission systems, comprising the steps of: sampling an optical binary signal in a working channel with a first threshold value (*e.g.*, *col./line: 6/10-15*), producing first sampling values (); additionally sampling said optical binary signal in a measuring channel with a second threshold value during a plurality of measuring intervals (*e.g.*, *col./line: 5/50-65*) in which in each case said second threshold value is varied (*e.g.*, *col./line: 6/10-15*), producing second sampling values (*Figure 8B*); comparing respective said first sampling values with said second sampling values (*Figure 8B*), producing comparison values; integrating or summing

(*e.g.*, *col./line: 6/45-50*) said comparison values to produce, for each measuring interval, a summated comparison value; distribution function of said comparison values as a function of determining a distribution said second variable threshold value after an adequate number of said measuring intervals (*e.g.*, *col./line: 5/50-65*); and said signal quality or optimizing said optical transmission system improving to utilizing said distribution function (Figure 8, ).

Fisher does not disclose storing said summated comparison values.

It would have been obvious to an artisan of ordinary skill in the art at the time of invention to store comparison values for the purpose of performing calculations as this is a well-known basic function in algorithmic processors.

Regarding claim 6, Fisher disclosed

wherein measuring intervals of different lengths are used. (*e.g.*, *col./line: 5/50-65*).

Regarding claim 7, Fisher disclosed

wherein said sampling is synchronous (*linearly increasing, col./line: 6/45-50*).

Regarding claim 8, Fisher disclosed wherein said sampling takes place in parallel in a

plurality of measuring channels with different threshold values. (*e.g.*, *col./line: 6/49-65*).

Regarding claim 9, Fisher disclosed wherein said sampling takes place in parallel in a

plurality of measuring channels with different threshold values during only one measuring interval. (*e.g.*, *col./line: 6/49-65*).

Regarding claim 10, Fisher disclosed comprising the step of changing a sampling instant in the measuring channel after each measuring interval. (*e.g.*, *col./line: 5/50-65*).

Regarding claim 11,

Fisher does not disclose an at least approximately optimum value for dispersion compensation. It would have been obvious to an artisan of ordinary skill in the art at the time of invention to choose an optimum value to minimize noise disturbance. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.

#### ***Allowable Subject Matter***

4. Claims 2-5 and 14-27 are allowed.

#### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takara et al. US 6,396,601 B1 disclose a signal quality monitoring system relevant to applicant's invention.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (571) 272-3024. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dcp



David C. Payne  
Patent Examiner  
AU 2633